

## In the Specification

Please amend page 4, lines 13-15, to the following:

--Figure 3 shows a second example method 300. This method is referred to as a closed-loop architecture. In this method, the input video bitstream 301 is again partially decoded, i.e., macroblocks of the input bitstream are variable-length--

Please amend page 5, lines 5-8, to the following:

--vectors 381 associated with each incoming block are then used to recall the corresponding difference blocks, such as in motion compensation 290 390. The corresponding blocks are then transformed via the DCT 332 331 to yield the correction component. A derivation of the method shown in Figure 3 is--

Please amend page 11, line 11, to the following:

--Figure 11a 11A is a block diagram of a second closed-loop transcoder for spatial--

Please amend page 11, line 15, to the following:

--Figure 11b 11B is a block diagram of a third closed-loop transcoder for spatial--

Please amend page 13, line 15, to the following:

--three alternatives, Figures 10 and 11a-b 11A-B, correspond to closed-loop architectures--

Please amend page 14, lines 5-6, to the following:

--**reduced** resolution domain. The second closed-loop architecture of Figure ~~11a~~ 11A is of moderate complexity. It includes a reconstruction loop, IDCT/DCT blocks,--

Please amend page 17, line 7, to the following:

--resolution external client 806 via the external network ~~802~~ 703, then the transcoder--

Please amend page 18, lines 9-11, to the following:

--The signal  $g_n^2$  is subject to the DCT 440, then quantized 450 with quantization parameter  $Q_2$ . The quantized signal  $c_{out}$  451 is variable length coded 460 and written to the transcoded bitstream 402. As part of the motion compensation loop in the--

Please amend page 20, lines 6-8, to the following:

--quantized 1170 with quantizer  $Q_2$ . Finally, the reduced resolution re-quantized DCT coefficients 1171, and motion vectors 1121 obtained by MV mapping 1120 are variable length coded 1180, and written to the transcoded bitstream 1102.--

Please amend page 23, lines 5-6, to the following:

--1141 in the DCT domain. The signal 1162 is then down-sampled 1150, and the down-sampled signal 1161 is quantized 1170 with quantizer  $Q_2$ . Finally, the reduced resolution re-quantized--

Please amend page 23, lines 13-14, to the following:

--the up-sampled signal is subtracted 1192 from the *original* resolution residual ~~1161 1141~~. This difference signal is subject to the IDCT 1194, and added 1195 to the--

Please amend page 24, lines 4-5, to the following:

--Figure ~~11b~~ 11B shows an alternative embodiment of the closed loop architecture of Figure ~~11a~~ 11A. Here, the output of the inverse quantization 1190 of the re-quantizer--

Please amend page 24, lines 20-24, to the following:

--However, up-sampling is still employed for two reasons: to make use of the full-resolution motion vectors 1121 obtained by MV mapping 1120 to avoid any further approximation, and so that the drift compensating signal is in the original resolution and can be added 1160 to the incoming residual ~~1161 1141~~ before down-sampling 1150.--

Please amend page 26, line 7, to the following:

--~~Figure 1300~~ Figure 13 shows the components of the group of blocks processor 1300. For--

Please amend page 35, lines 1-3, to the following:

--Given the above, block  $E$  1610 represents the up-sampled DCT block based on filtering  $C$  with  $X_u$  1611, and  $e$  1620 represents the up-sampled spatial domain block-based on filtering  $c$  with the  $x_u$  1621 given by equation (12). Note that  $e$  and  $E$ --

Please amend page 32, line 12, to the following:

--architecture shown in ~~Figure 11~~ Figure 11A that requires up-sampling.  
More generally, the--

Please amend page 33, line 21, to the following:

--the transcoder described in this invention. In ~~Figure 11a~~ 11A, up-sampled  
DCT data--

Please amend page 35, lines 10-12, to the following:

--As shown in Figure 16, the desired DCT blocks are denoted by ~~A 1611~~  
1651 and ~~B 1612~~ 1652. The aim of this derivation is to derive filters  
 $X_{ca}$  1641 and  $X_{cb}$  1642 that can be used to compute  $A$  and  $B$  directly from  $C$ ,  
respectively.--